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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/880,076 | 06/14/2001 | Motohiro Shimizu | 010708 | 3823 |

23850 7590 09/11/2002

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EXAMINER

PHAM, LEDA T

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2834

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,076

Applicant(s)

SHIMIZU ET AL.

Examiner

Leda T. Pham

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "a reference temperature" in claim 2 does not show in the specification. The reference temperature should be a specific number.

Claim Objections

2. Claims 5 – 8 are objected to because of the following informalities: "an conduction" in those claims should be changed to --a conductor-- Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 – 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 - 4, the term "the temperature" is lack of antecedent basis. There is no sensing for detecting temperature of the generator in the claim.

In claim 2, the term "a reference temperature" is indefinite. The specification does not show any temperature to be a reference temperature.

Claims 5 – 10 are rejected for being dependent to claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 –10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. (U. S. Patent No. 6,130,486) in view of Wakashiro et al. (U.S. Patent No. 6,424,053 B1)

Shimizu discloses in figure 1 –2, an engine operated generator having a converter composed of a semiconductor rectifying element for rectifying the output current of a generator driven by an engine and an inverter for converting a direct current received from the converter into an alternating current at a desired frequency, comprising a semiconductor rectifying element driving circuit for controlling the conduction of the semiconductor rectifying element to adjust the output voltage of the converter to a target level; a conduction rate detecting means for detecting the rate of conduction of the semiconductor rectifying element; an engine revolution controlling means for controlling the number of revolutions of the engine so that the rate of conduction detected by the conduction rate detecting means is converged at a target rate. Shimizu does not disclose a modifying means for modifying the target rate in response to the temperature of the generator.

Wakashiro discloses a control apparatus having an engine temperature measuring device for measuring the temperature of the engine and a generated energy increasing device for increasing the energy generated by the motor acting as a generator (see abstract).

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify Shimizu's engine operated generator with the modifying means as taught by Wakashiro for the purpose of measuring the temperature of the engine and increasing the temperature of the generator.

Referring to claim 2, the combination of Shimizu and Wakashiro teaches the modifying means is arranged for increasing the target rate when the temperature of the generator is lower than a reference temperature and decreasing the target rate when the temperature of the generator is higher than the reference temperature.

Referring to claim 3, Shimizu teaches the temperature of the generator is represented by the temperature of a power controlling element provided in the inverter (figure 2).

Referring to claim 4, Shimizu teaches the temperature of the generator is represented by the temperature of a power controlling element provided in the converter (figure 2).

Referring to claim 5, Shimizu teaches the rate of conduction is a conduction angle of the semiconductor rectifying element and its target degree is hence a target degree of conduction.

Referring to claim 6, Shimizu teaches the rate of conduction is a conduction angle of the semiconductor rectifying element and its target degree is hence a target degree of conduction.

Referring to claim 7, Shimizu teaches the rate of conduction is a conduction angle of the semiconductor rectifying element and its target degree is hence a target degree of conduction.

Referring to claim 8, Shimizu teaches the rate of conduction is a conduction angle of the semiconductor rectifying element and its target degree is hence a target degree of conduction.

Referring to claim 9, Shimizu teaches the generator is a magnet generator.

Referring to claim 10, Shimizu teaches the generator is a magnet generator.

Conclusion

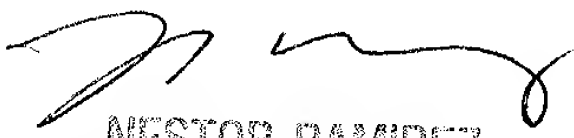
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (703) 305-4864. The examiner can normally be reached on M-F (7:30-5:00) first Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-9176 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

Leda T. Pham
Examiner
Art Unit 2834

LTP
September 3, 2002


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
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